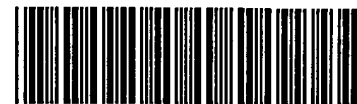


RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 09/336,091 B
Source: IFW16
Date Processed by STIC: 09/19/2005

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/336,091B

TIME: 10:22:25

Input Set : A:\L0461-70063US00.txt

Output Set: N:\CRF4\09192005\I336091B.raw

```

2 <110> APPLICANT: Van Snick, Jacques
3     Lethe, Bernard
4     Chaux, Pascal
5     Boon-Falleur, Thierry
6     van der Bruggen, Pierre
W--> 7 <120> TITLE OF INVENTION: MAGE-A1 PEPTIDES PRESENTED BY HLA CLASS
W--> 8     II MOLECULES
W--> 9 <130> FILE REFERENCE: L0461.70063US00
W--> 10 <140> CURRENT APPLICATION NUMBER: US 09/336,091B
11 <141> CURRENT FILING DATE: 1999-06-18
13 <160> NUMBER OF SEQ ID NOS: 73
14 <170> SOFTWARE: FastSEQ for Windows Version 3.0
W--> 15 <210> SEQ ID NO: 1
16 <211> LENGTH: 1624
17 <212> TYPE: DNA
18 <213> ORGANISM: Homo sapiens
W--> 19 <400> SEQUENCE: 1
20  gttttcaggg gacaggccaa cccagaggac aggattccct ggaggccaca gaggagcacc      60
21  aaggagaaga tctgcctgtg ggtcttcatt gcccagctcc tgcccacact cctgcctgct      120
22  gccctgacga gagtcacat gtctcttgag cagaggagtc tgcactgcaa gcctgaggaa      180
23  gcccttgagg cccaacaaga ggccctgggc ctggtgtgtg tgcaggctgc cacctcctcc      240
24  tcctctcctc tggtcctggg caccctggag gaggtgccca ctgctgggtc aacagatcct      300
25  ccccagagtc ctcagggagc ctccgccttt cccactacca tcaacttcac tcgacagagg      360
26  caaccacgtg aggggtccag cagccgtgaa gaggaggggc caagcacctc ttgtatcctg      420
27  gagtcttgtt tccgagcagt aatcactaag aagggtggctg atttggttg ttttctgctc      480
28  ctcaaatac gaggccagga gccagtcaca aaggcagaaa tgctggagag tgcatcaaaa      540
29  aattacaagc actgttttcc tgagatcttc ggcaaagcct ctgagtcctt gcagctggtc      600
30  tttggcattg acgtgaagga agcagacccc accggccact cctatgtcct tgtcacctgc      660
31  ctaggctctc cctatgatgg cctgctgggt gataatcaga tcatgcccaa gacaggcttc      720
32  ctgataattg tcttggtcat gattgcaatg gagggcggcc atgctcctga ggaggaaatc      780
33  tgggaggagc tgagtgtgat ggaggtgtat gatgggaggg agcacagtgc ctatggggag      840
34  cccaggaagc tgctcaccca agatttggtg caggaaaagt acctggagta ccggcagggtg      900
35  ccggacagtg atcccgcacg ctatgagttc ctgtgggggtc caagggccct cgctgaaacc      960
36  agctatgtga aagtccttga gtatgtgatc aaggctcagt caagagtctg ctttttcttc     1020
37  ccatccctgc gtgaagcagc tttgagagag gaggaagagg gagtctgagc atgagttgca     1080
38  gccaaaggcca gtgggagggg gactgggcca gtgcaccttc caggggccgcg tccagcagct     1140
39  tcccctgcct cgtgtgacat gaggccatt cttcactctg aagagagcgg tcagtgttct     1200
40  cagtagtagg tttctgttct attgggtgac ttggagattt atctttgttc tcttttgaa     1260
41  ttgttcaaat gttttttttt aagggatggg tgaatgaact tcagcatcca agtttatgaa     1320
42  tgacagcagt cacacagttc tgtgtatata gtttaagggt aagagtcttg tgttttatc     1380
43  agattgggaa atccattcta ttttgtgaat tgggataata acagcagtgg aataagtact     1440
44  tagaaatgtg aaaaatgagc agtaaaatag atgagataaa gaactaaaga aattaagaga     1500
45  tagtcaattc ttgccttata cctcagtcct ttctgtaaaa tttttaaaga tatatgcata     1560

```

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/336,091B

TIME: 10:22:25

Input Set : A:\L0461-70063US00.txt

Output Set: N:\CRF4\09192005\I336091B.raw

```

46 cctggatttc cttggcttct ttgagaatgt aagagaaatt aaatctgaat aaagaattct      1620
47 tcct                                                                    1624
48 <210> SEQ ID NO: 2
49 <211> LENGTH: 309
50 <212> TYPE: PRT
51 <213> ORGANISM: Homo sapiens
W--> 52 <400> SEQUENCE: 2
53 Met Ser Leu Glu Gln Arg Ser Leu His Cys Lys Pro Glu Glu Ala Leu
54   1          5          10          15
55 Glu Ala Gln Gln Glu Ala Leu Gly Leu Val Cys Val Gln Ala Ala Thr
56          20          25          30
57 Ser Ser Ser Ser Pro Leu Val Leu Gly Thr Leu Glu Glu Val Pro Thr
58          35          40          45
59 Ala Gly Ser Thr Asp Pro Pro Gln Ser Pro Gln Gly Ala Ser Ala Phe
60          50          55          60
61 Pro Thr Thr Ile Asn Phe Thr Arg Gln Arg Gln Pro Ser Glu Gly Ser
62          65          70          75          80
63 Ser Ser Arg Glu Glu Glu Gly Pro Ser Thr Ser Cys Ile Leu Glu Ser
64          85          90          95
65 Leu Phe Arg Ala Val Ile Thr Lys Lys Val Ala Asp Leu Val Gly Phe
66          100         105         110
67 Leu Leu Leu Lys Tyr Arg Ala Arg Glu Pro Val Thr Lys Ala Glu Met
68          115         120         125
69 Leu Glu Ser Val Ile Lys Asn Tyr Lys His Cys Phe Pro Glu Ile Phe
70          130         135         140
71 Gly Lys Ala Ser Glu Ser Leu Gln Leu Val Phe Gly Ile Asp Val Lys
72          145         150         155         160
73 Glu Ala Asp Pro Thr Gly His Ser Tyr Val Leu Val Thr Cys Leu Gly
74          165         170         175
75 Leu Ser Tyr Asp Gly Leu Leu Gly Asp Asn Gln Ile Met Pro Lys Thr
76          180         185         190
77 Gly Phe Leu Ile Ile Val Leu Val Met Ile Ala Met Glu Gly Gly His
78          195         200         205
79 Ala Pro Glu Glu Glu Ile Trp Glu Glu Leu Ser Val Met Glu Val Tyr
80          210         215         220
81 Asp Gly Arg Glu His Ser Ala Tyr Gly Glu Pro Arg Lys Leu Leu Thr
82          225         230         235         240
83 Gln Asp Leu Val Gln Glu Lys Tyr Leu Glu Tyr Arg Gln Val Pro Asp
84          245         250         255
85 Ser Asp Pro Ala Arg Tyr Glu Phe Leu Trp Gly Pro Arg Ala Leu Ala
86          260         265         270
87 Glu Thr Ser Tyr Val Lys Val Leu Glu Tyr Val Ile Lys Val Ser Ala
88          275         280         285
89 Arg Val Arg Phe Phe Phe Pro Ser Leu Arg Glu Ala Ala Leu Arg Glu
90          290         295         300
91 Glu Glu Glu Gly Val
92          305
93 <210> SEQ ID NO: 3
94 <211> LENGTH: 16

```

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/336,091B

TIME: 10:22:25

Input Set : A:\L0461-70063US00.txt

Output Set: N:\CRF4\09192005\I336091B.raw

```

95 <212> TYPE: PRT
96 <213> ORGANISM: Homo sapiens
W--> 97 <400> SEQUENCE: 3
98 Val Lys Val Leu Glu Tyr Val Ile Lys Val Ser Ala Arg Val Arg Phe
99 1 5 10 15
100 <210> SEQ ID NO: 4
101 <211> LENGTH: 16
102 <212> TYPE: PRT
103 <213> ORGANISM: Homo sapiens
W--> 104 <400> SEQUENCE: 4
105 Glu Tyr Val Ile Lys Val Ser Ala Arg Val Arg Phe Phe Phe Pro Ser
106 1 5 10 15
107 <210> SEQ ID NO: 5
108 <211> LENGTH: 12
109 <212> TYPE: PRT
110 <213> ORGANISM: Homo sapiens
W--> 111 <400> SEQUENCE: 5
112 Glu Thr Ser Tyr Val Lys Val Leu Glu Tyr Val Ile
113 1 5 10
114 <210> SEQ ID NO: 6
115 <211> LENGTH: 12
116 <212> TYPE: PRT
117 <213> ORGANISM: Homo sapiens
W--> 118 <400> SEQUENCE: 6
119 Val Lys Val Leu Glu Tyr Val Ile Lys Val Ser Ala
120 1 5 10
121 <210> SEQ ID NO: 7
122 <211> LENGTH: 12
123 <212> TYPE: PRT
124 <213> ORGANISM: Homo sapiens
W--> 125 <400> SEQUENCE: 7
126 Glu Tyr Val Ile Lys Val Ser Ala Arg Val Arg Phe
127 1 5 10
128 <210> SEQ ID NO: 8
129 <211> LENGTH: 12
130 <212> TYPE: PRT
131 <213> ORGANISM: Homo sapiens
W--> 132 <400> SEQUENCE: 8
133 Lys Val Ser Ala Arg Val Arg Phe Phe Phe Pro Ser
134 1 5 10
135 <210> SEQ ID NO: 9
136 <211> LENGTH: 12
137 <212> TYPE: PRT
138 <213> ORGANISM: Homo sapiens
W--> 139 <400> SEQUENCE: 9
140 Arg Val Arg Phe Phe Phe Pro Ser Leu Arg Glu Ala
141 1 5 10
142 <210> SEQ ID NO: 10
143 <211> LENGTH: 12

```

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/336,091B

TIME: 10:22:25

Input Set : A:\L0461-70063US00.txt

Output Set: N:\CRF4\09192005\I336091B.raw

```

144 <212> TYPE: PRT
145 <213> ORGANISM: Homo sapiens
W--> 146 <400> SEQUENCE: 10
147 Phe Phe Pro Ser Leu Arg Glu Ala Ala Leu Arg Glu
148 1 5 10
149 <210> SEQ ID NO: 11
150 <211> LENGTH: 13
151 <212> TYPE: PRT
152 <213> ORGANISM: Homo sapiens
W--> 153 <400> SEQUENCE: 11
154 Leu Arg Glu Ala Ala Leu Arg Glu Glu Glu Gly Val
155 1 5 10
156 <210> SEQ ID NO: 12
157 <211> LENGTH: 36
158 <212> TYPE: DNA
159 <213> ORGANISM: Homo sapiens
W--> 160 <400> SEQUENCE: 12
161 gagtatgtga tcaagggtcag tgcaagagtt cgcttt 36
162 <210> SEQ ID NO: 13
163 <211> LENGTH: 16
164 <212> TYPE: PRT
165 <213> ORGANISM: Homo sapiens
W--> 166 <400> SEQUENCE: 13
167 Tyr Val Lys Val Leu Glu His Val Val Arg Val Asn Ala Arg Val Arg
168 1 5 10 15
169 <210> SEQ ID NO: 14
170 <211> LENGTH: 16
171 <212> TYPE: PRT
172 <213> ORGANISM: Homo sapiens
W--> 173 <400> SEQUENCE: 14
174 Leu Glu His Val Val Arg Val Asn Ala Arg Val Arg Ile Ala Tyr Pro
175 1 5 10 15
176 <210> SEQ ID NO: 15
177 <211> LENGTH: 9
178 <212> TYPE: PRT
179 <213> ORGANISM: Homo sapiens
W--> 180 <400> SEQUENCE: 15
181 Glu Ala Asp Pro Thr Gly His Ser Tyr
182 1 5
183 <210> SEQ ID NO: 16
184 <211> LENGTH: 9
185 <212> TYPE: PRT
186 <213> ORGANISM: Homo sapiens
W--> 187 <400> SEQUENCE: 16
188 Ser Leu Phe Arg Ala Val Ile Thr Lys
189 1 5
190 <210> SEQ ID NO: 17
191 <211> LENGTH: 9
192 <212> TYPE: PRT

```

RAW SEQUENCE LISTING

DATE: 09/19/2005

PATENT APPLICATION: US/09/336,091B

TIME: 10:22:25

Input Set : A:\L0461-70063US00.txt

Output Set: N:\CRF4\09192005\I336091B.raw

```

193 <213> ORGANISM: Homo sapiens
W--> 194 <400> SEQUENCE: 17
195   Asn Tyr Lys His Cys Phe Pro Glu Ile
196     1             5
197 <210> SEQ ID NO: 18
198 <211> LENGTH: 10
199 <212> TYPE: PRT
200 <213> ORGANISM: Homo sapiens
W--> 201 <400> SEQUENCE: 18
202   Glu Val Tyr Asp Gly Arg Glu His Ser Ala
203     1             5             10
204 <210> SEQ ID NO: 19
205 <211> LENGTH: 10
206 <212> TYPE: PRT
207 <213> ORGANISM: Homo sapiens
W--> 208 <400> SEQUENCE: 19
209   Arg Glu Pro Val Thr Lys Ala Glu Met Leu
210     1             5             10
211 <210> SEQ ID NO: 20
212 <211> LENGTH: 9
213 <212> TYPE: PRT
214 <213> ORGANISM: Homo sapiens
W--> 215 <400> SEQUENCE: 20
216   Asp Pro Ala Arg Tyr Glu Phe Leu Trp
217     1             5
218 <210> SEQ ID NO: 21
219 <211> LENGTH: 9
220 <212> TYPE: PRT
221 <213> ORGANISM: Homo sapiens
W--> 222 <400> SEQUENCE: 21
223   Ser Ala Phe Pro Thr Thr Ile Asn Phe
224     1             5
225 <210> SEQ ID NO: 22
226 <211> LENGTH: 9
227 <212> TYPE: PRT
228 <213> ORGANISM: Homo sapiens
W--> 229 <400> SEQUENCE: 22
230   Ser Ala Tyr Gly Glu Pro Arg Lys Leu
231     1             5
232 <210> SEQ ID NO: 23
233 <211> LENGTH: 14
234 <212> TYPE: PRT
235 <213> ORGANISM: Homo sapiens
W--> 236 <400> SEQUENCE: 23
237   Leu Leu Lys Tyr Arg Ala Arg Glu Pro Val Thr Lys Ala Glu
238     1             5             10
239 <210> SEQ ID NO: 24
240 <211> LENGTH: 10
241 <212> TYPE: PRT

```

VERIFICATION SUMMARY

DATE: 09/19/2005

PATENT APPLICATION: US/09/336,091B

TIME: 10:22:26

Input Set : A:\L0461-70063US00.txt

Output Set: N:\CRF4\09192005\I336091B.raw

L:7 M:283 W: Missing Blank Line separator, <120> field identifier
L:9 M:283 W: Missing Blank Line separator, <130> field identifier
L:10 M:283 W: Missing Blank Line separator, <140> field identifier
L:15 M:283 W: Missing Blank Line separator, <210> field identifier
L:19 M:283 W: Missing Blank Line separator, <400> field identifier
L:52 M:283 W: Missing Blank Line separator, <400> field identifier
L:97 M:283 W: Missing Blank Line separator, <400> field identifier
L:104 M:283 W: Missing Blank Line separator, <400> field identifier
L:111 M:283 W: Missing Blank Line separator, <400> field identifier
L:118 M:283 W: Missing Blank Line separator, <400> field identifier
L:125 M:283 W: Missing Blank Line separator, <400> field identifier
L:132 M:283 W: Missing Blank Line separator, <400> field identifier
L:139 M:283 W: Missing Blank Line separator, <400> field identifier
L:146 M:283 W: Missing Blank Line separator, <400> field identifier
L:153 M:283 W: Missing Blank Line separator, <400> field identifier
L:160 M:283 W: Missing Blank Line separator, <400> field identifier
L:166 M:283 W: Missing Blank Line separator, <400> field identifier
L:173 M:283 W: Missing Blank Line separator, <400> field identifier
L:180 M:283 W: Missing Blank Line separator, <400> field identifier
L:187 M:283 W: Missing Blank Line separator, <400> field identifier
L:194 M:283 W: Missing Blank Line separator, <400> field identifier
L:201 M:283 W: Missing Blank Line separator, <400> field identifier
L:208 M:283 W: Missing Blank Line separator, <400> field identifier
L:215 M:283 W: Missing Blank Line separator, <400> field identifier
L:222 M:283 W: Missing Blank Line separator, <400> field identifier
L:229 M:283 W: Missing Blank Line separator, <400> field identifier
L:236 M:283 W: Missing Blank Line separator, <400> field identifier
L:243 M:283 W: Missing Blank Line separator, <400> field identifier
L:250 M:283 W: Missing Blank Line separator, <400> field identifier
L:257 M:283 W: Missing Blank Line separator, <400> field identifier
L:264 M:283 W: Missing Blank Line separator, <400> field identifier
L:271 M:283 W: Missing Blank Line separator, <400> field identifier
L:278 M:283 W: Missing Blank Line separator, <400> field identifier
L:285 M:283 W: Missing Blank Line separator, <400> field identifier
L:292 M:283 W: Missing Blank Line separator, <400> field identifier
L:299 M:283 W: Missing Blank Line separator, <400> field identifier
L:306 M:283 W: Missing Blank Line separator, <400> field identifier
L:313 M:283 W: Missing Blank Line separator, <400> field identifier
L:320 M:283 W: Missing Blank Line separator, <400> field identifier
L:327 M:283 W: Missing Blank Line separator, <400> field identifier
L:334 M:283 W: Missing Blank Line separator, <400> field identifier
L:341 M:283 W: Missing Blank Line separator, <400> field identifier
L:348 M:283 W: Missing Blank Line separator, <400> field identifier
L:355 M:283 W: Missing Blank Line separator, <400> field identifier
L:362 M:283 W: Missing Blank Line separator, <400> field identifier
L:369 M:283 W: Missing Blank Line separator, <400> field identifier
L:376 M:283 W: Missing Blank Line separator, <400> field identifier
L:383 M:283 W: Missing Blank Line separator, <400> field identifier

VERIFICATION SUMMARY

DATE: 09/19/2005

PATENT APPLICATION: US/09/336,091B

TIME: 10:22:26

Input Set : A:\L0461-70063US00.txt

Output Set: N:\CRF4\09192005\I336091B.raw

L:390 M:283 W: Missing Blank Line separator, <400> field identifier

L:397 M:283 W: Missing Blank Line separator, <400> field identifier